

REMARKS

These remarks are in response to the Office Action mailed September 29, 2008. Claim 2 has been canceled without prejudice to Applicants' right to prosecute the canceled subject matter in any divisional, continuation, continuation-in-part or other application. Claims 1, 9 and 23 have been amended. Support for the amendments can be found throughout the specification as filed (see, e.g., claim 2, Figure 2, paragraph [00060] of the present patent publication and the Examples beginning on page 35). Claims 8, 22 and 36 have been amended to remove recitation of the trade names for the particular agents and to insert their generic names as known in the art at the time of filing. No new matter is believed to have been introduced.

I. AMENDMENTS TO THE SPECIFICATION

The specification has been amended to properly set forth the reference to Government sponsorship and funding.

II. REJECTION UNDER 35 U.S.C. §112, SECOND PARAGRAPH

Claims 8, 22, and 36 stand rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards and the invention. Applicants respectfully traverse this rejection with respect to the amended claims.

The claims have been amended to replace the Tradenames in claims 8, 22 and 36 with the generic names. For example, Cascade Blue™ is known as pyrenyloxytrisulfonic acid (see, e.g., U.S. Pat. No. 6,600,017) and Texas Red™ is known as sulforhodamine 101 chloride (see, e.g., U.S. Pat. No. 5,798,276).

For, at least, the foregoing reasons Applicants believe that this rejection may be properly withdrawn.

III. REJECTION UNDER 35 U.S.C. §102

Claims 1-3, 5-17, 19-31 and 33-36 stand rejected under §102(b) as allegedly anticipated by Wyrick *et al.* (WO 01/16378). Applicants respectfully traverse this rejection.

In order for a claim to be anticipated the cited reference must teach each and every element of the claim.

Wyrick *et al.* generally teach ChIP-Chip techniques. As noted in the specification and to those of skill in the art, the ChIP-Chip technique lacks specificity and selectivity. For example, Wyrick *et al.* fail to teach or suggest contacting a target polynucleotide with a primer pair comprising a complementary region and a universal primer landing site. Wyrick *et al.* also fail to teach or suggest amplifying a ligated probe using universal primers. Wyrick *et al.* also fail to teach or suggest biotinylating the fragmented DNA. In addition, Wyrick *et al.* fail to teach or suggest the use of T3 and T7 priming sequences (as recognized by the Examiner). Thus, Wyrick *et al.* fail to teach or suggest each and every element of Applicants' claimed invention. Accordingly, Applicants respectfully request withdrawal of the rejection.

Claims 1-3, 5-17, 19-31 and 33-36 stand rejected under §102(e) as allegedly anticipated by Wyrick *et al.* ("Wyrick-2 *et al.*"; U.S. Patent Publ. 20080125328). Applicants respectfully traverse this rejection.

In order for a claim to be anticipated the cited reference must teach each and every element of the claim.

As above Wyrick-2 *et al.* fail to teach or suggest biotinylating the fragmented DNA to improve ChIP-Chip technology. In addition, Wyrick *et al.* fail to teach or suggest the use of T3 and T7 priming sequences (as recognized by the Examiner). Thus, Wyrick *et al.* fail to teach or suggest each and every element of Applicants' claimed invention. Such a techniques described by Applicants improve the fidelity and reduces noise providing a distinctive advantage over previous techniques. Such advantages have been described in papers and publications following Applicants' filing date and the techniques described in this application have found success in the field of DNA binding proteins measurements and assays. Accordingly, Applicants respectfully request withdrawal of the rejection.

IV. REJECTION UNDER 35 U.S.C. §103

Claims 4, 18, and 32 stand rejected under 35 U.S.C. §103 as allegedly unpatentable over either Wyrick *et al.* or Wyrick-2 *et al.* in view of Huang *et al.* Applicants respectfully traverse this rejection.

The deficiencies of Wyrick *et al.* and Wyrick-2 *et al.* are described above, Huang *et al.* is combined to allegedly teach T3 and T7 primers. However, Applicants respectfully submit that the combination of references to include Huang *et al.* does not overcome the deficiencies described above for the primary references. Furthermore, the claimed invention (now known as "ChIP-GLAS") is not a mere combination of two separate and distinct techniques used for different purposes in the art. For example, there would have been no expectation of success in combining Wyrick *et al.* techniques with T3 or T7 primers of Huang *et al.* to arrive at a method that provides improved sensitivity and/or selectivity, the process of the claimed method or the results that can be generated. The inventive aspect of Applicants' invention can be further demonstrated by the publications of Aviva Systems Biology Corp., which publish the advantages of the invention as it is now referred to as ChIP-GLAS. This demonstrates the long felt but unmet need in the art for methods of the invention that have improved selectivity and specificity.

Claim 37 stands rejected as allegedly obvious under 35 U.S.C. §103 over Wyrick *et al.* or Wyrick-2 *et al.* and further in view of Ahern. Applicants respectfully traverse this rejection. Wyrick *et al.* do not teach or suggest a primer pair, each primer comprising at least two portions, a first portion comprising a target-specific oligonucleotide that is capable of hybridizing to a target polynucleotide in the enriched preparation, and a second portion comprising a universal primer landing site, the two primers being specific for an upstream and downstream segment of the target polynucleotide, wherein the universal landing sites are not the same in a kit with a microarray and an agent for immunoprecipitation. Rather at most Wyrick *et al.* teach or suggest only a ligase, and a immunoprecipitation agent.

For, at least, the foregoing reasons the claims submitted herewith are non-obvious over the references either alone or in combination.

For at least the foregoing, the Applicant submits that the claimed invention is patentable and request reconsideration and notice of such allowable subject matter.

The Director is authorized to charge any required fee or credit any overpayment to Deposit Account Number 50-4586, please reference the attorney docket number above.

The Examiner is invited to contact the undersigned at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted,

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